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AUTHOR Edwards, Roberta M.; And Others
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ABSTRACT

The booklet explains the features of the STAGE Program (System for Talent and Gifted Education) in Trinity County, California. The STAGE scope and sequence includes competencies for gifted students in grades K through 12 with a focus on developing thinking skills, creativity, productivity, and communication skills. Competencies are briefly outlined for grades K-3, 4-6, 7-8, and 9-12, and the corresponding abilities checklists are provided. Samples of Individualized Education Plans are included in which each goal is matched with a major heading in the abilities checklist. A three-fold evaluation process makes use of the checklist, a pre-post student survey, and a weekly evaluation card. (Sample measures are included.) Group activities of the pullout program are explained which center around independent projects chosen by the students based on interest inventories. Copies of the inventories are appended. (CL)

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Trinity County STAGE Program

System for

Talented and Gifted Education

Produced by

Trinity County Office of Education
Donald R. Stewart, Superintendent
James B. French, Director Special Education
P.O. Box 1256, Weaverville, California 96093

Edited by

Dr. Paul Plowman

Prepared by

The Gifted Education Staff
Roberta M. Edwards
Wayne F. Moss
Pennie A. Saletta

EC 200 287

It makes little sense to espouse excellence and quality in education while at the same time failing to provide challenging teachers and curricula for gifted and talented children. Neglect of bright minds can only result in a deterioration of hopes and accomplishments of individuals and in a serious decline of productivity of our state and nation.

We plan to use the pioneering work of gifted and talented educators in nurturing advanced as well as basic intellectual, academic, and creative-problem-solving abilities. A reasonable long-range expectation of this effort is improvement in the quality of decisions and solutions to an array of economic, social, political, and educational problems.

Our thrust for excellence begins with the identification and the development to the fullest extent possible of the intellectual and creative resources upon which we all depend. In doing this, we must look carefully at the aspirations and capabilities of each child in kindergarten and in each of the other grades or levels of public education. As part of this effort, we must do all in our power to help the gifted and talented child seize opportunities and reach high goals.

Bill Honig
Superintendent of Public Instruction
California State Department of Education

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Trinity County is a rural county located in the mountains of northern California. The county covers an area of 3,191 square miles. Although, larger in size than the states of Rhode Island and Delaware, the county has a population of only approximately 12,500 people. Land elevation extends from 600 feet at Salyer in the western part of the county to 9,083 feet at Mt. Eddy in the north.

The county seat, Weaverville, has a population of 3,000 and is the largest town in the county. Trinity County has no incorporated towns, no freeways, stop lights, or parking meters.

INTRODUCTION

INTRODUCTION

The Trinity County STAGE Program is a managment and evaluation system designed for gifted and talented educational programs. It has evolved through nine years of study of the education of gifted students in Trinity County. The STAGE system insures that students in a gifted and talented program are developing desired competencies in thinking, creativity, productivity, and communication.

This STAGE system encompasses the following:

- Scope and Sequence: grades K-12
- Abilities' Checklist to evaluate skills in the Scope and Sequence
- Individual Education Plan (IEP) to enable GATE instructors to plan an individualized program for each student
- Evaluation System

The Scope and Sequence is for kindergarten and grades 1 to 12; the Abilities' Checklist is used to evaluate skills listed in the Scope and Sequence, and the IEP is used by GATE instructors to plan an individualized program for each student. The Evaluation System includes a pre and post-test, annual program evaluation, and weekly student evaluations. The weekly evaluations provide data which can be easily converted to letter grades.

This booklet explains each of these aspects of the STAGE Program and provides samples of each of the forms.

STUDENT IDENTIFICATION

The procedure for referral and evaluation of students for the GATE program in Trinity County is as follows:

1. Teachers and parents learn about the characteristics of gifted and talented children.

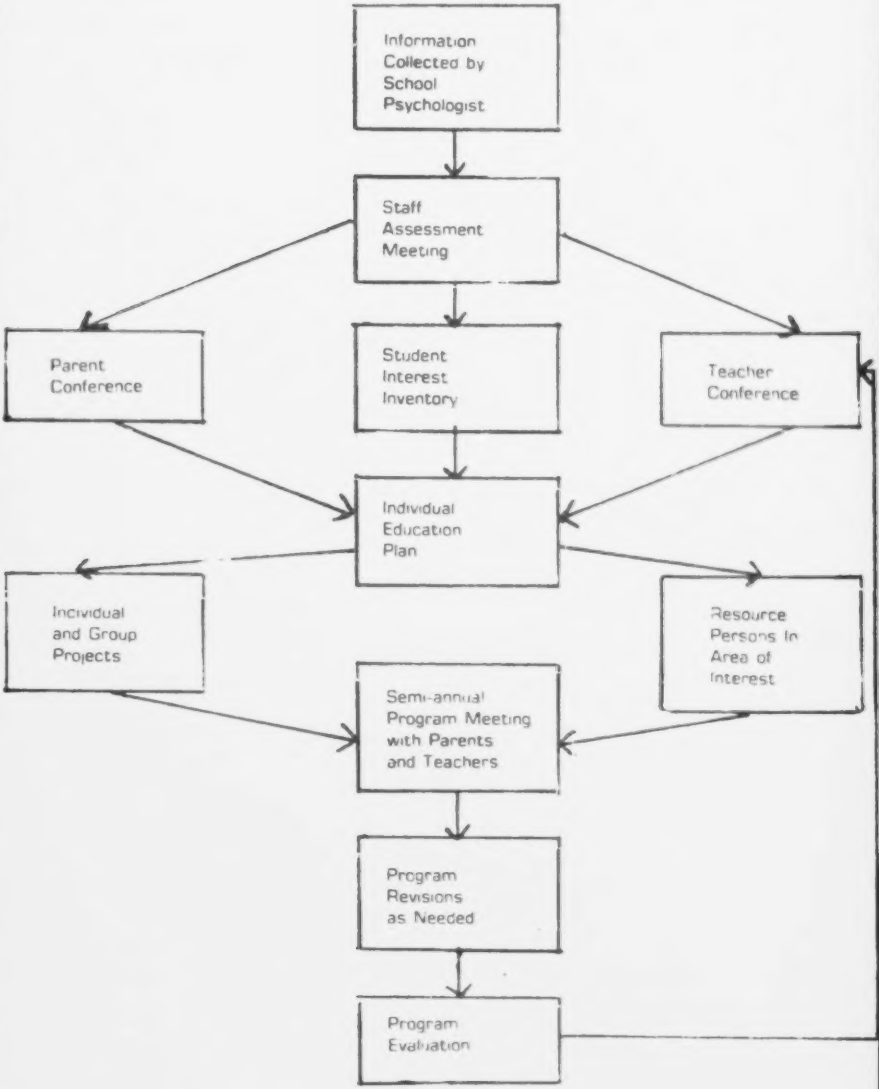
2. Teachers, parents, and occassionally children, notify the school psychologist of potential candidates. The psychologist receives written permission from parents for testing.

3. The school psychologist administers the WISC-R or WAIS-R. If the child achieves a score two standard deviations above the mean age score (130 or above), the child is administered an achievement test (or the CAT/CTBS scores are examined) and the Torrance Test of Creative Thinking.

4. If the child then scores a) in the 98th percentile, or above, on a major subtest of the achievement test, or b) two standard deviations above the mean on a subtest of the Torrance Test, then he or she qualifies for the GATE program.

5. A meeting is then held with the parent, GATE teacher, regular class teacher, and child (when appropriate). The child is discussed; the program is explained; and the child is formally admitted.

TRINITY COUNTY GATE PROGRAM MODEL



SCOPE AND SEQUENCE

SCOPE AND SEQUENCE

The first element in the STAGE Program is the STAGE Scope and Sequence. The STAGE Scope and Sequence encompasses competencies that are appropriate for gifted students in grades K through 12. In designing appropriate curriculm for gifted students, it is necessary to consider activities which develop thinking skills, creativity, productivity, and communication skills. The following paragraphs explain the rationale for including these particular four skill areas in the STAGE Scope and Sequence.

THINKING SKILLS

In **A Nation at Risk** (1983), the National Commission on Excellence in Education stresses the importance of developing thinking skills-an integral part of gifted and talented education since 1962.

One of the methods proposed by the California State Department of Education (1979) to provide adequate challenge for gifted students was to place more emphasis on the development of the high-level thinking skills of application, analysis, synthesis, and evaluation as outlined by Bloom (1956) in the **Taxonomy of Educational Objectives**. The work of Bloom (1956) and others defined levels of thinking and organized these levels into a hierarchy of increasing difficulty. The categories are:

1. Knowledge (learning of basic facts)

2. Comprehension (understanding meaning of information)

3. Application (applying generalizations to problems)

4. Analysis (breaking information into parts with understanding of the relationship of the elements)

5. Synthesis (creating new materials from existing information)

6. Evaluation (making judgements about facts).

Studies by Gallagher (1966) showed that teachers use a majority of questions requiring memory and understanding. Dr. Paul Plowman (1977) stated that in programs for gifted students more emphasis should be placed on developing the higher levels of thinking as outlined by Bloom. For gifted students who are capable of analysis, synthesis, and evaluation, appropriate changes should be introduced into the curriculum to enhance these levels of thinking. Many opportunities to collect data, analyze and evaluate information, relate information to known facts, and synthesize information to form new concepts and to contribute original products to the existing body of knowledge should be provided. For this reason, these areas have been included in the Scope and Sequence.

Gifted students can be taught to identify the six levels of thinking and to identify which skills they are using when they are performing certain activities. For example, if students design a new product such as a minicruiser snow bike or a wonder pencil, they are synthesizing and can identify the fact that they are working at that level. If students evaulate new product designs according to originality and practicality, they can state that they are working at the evaluation level. If students design an original research project and write a computer program to tally the results, students are using analysis and synthesis.

Using verbs associated with each level, students themselves can also develop appropriate curriculum activities, focusing on skills at each level and integrating these with their interest area.

As Clark (1983) noted, however, although gifted students need to work at the high levels of thinking, it is important to do this in a sequential pattern and not to

neglect the knowledge and comprehension levels where facts and information are gathered that are necessary input before work in analysis, synthesis, and evaluation begin.

Renzulli (1982) also noted the importance of knowledge since relevant information is the basis for the higher level processes.

Because analysis, synthesis, and evaluation cannot occur in a vacuum, research skills have been included in the Scope and Sequence. Beginning with the use of the card catalog at the primary level, students proceed to more complex research skills, such as using the Reader's Guide to Periodical Literature, interviewing, surveying, making and testing hypothesis, and eventually, for older students, using larger data base systems at a college or university library.

Research skills are the tools that enable gifted students to analyze information, support arguments, synthesize and create new ideas, and evaluate points of view.

CREATIVITY

In any discussion of appropriate curriculum, creativity is an essential element. Maslow (1970) noted that in all actualized persons that he studied, he found one characteristic in common - a special kind of creativity, originality, or inventiveness. This was noted by Gallagher (1975).

Some researchers have identified traits of creativity as fluency, flexibility, originality, sensitivity to problems, redefinition, and elaboration. Four of these, fluency, flexibility, originalty, and elaboration, are most frequently found in tests for creativity. Fluency is the ability to generate a large quantity of ideas. Flexibility is the ability to generate different kinds of ideas. Originality is the ability to generate unique ideas and elaboration is the development of ideas.

Whether creativity can be taught or not is still a matter of dispute among educators and psychologists. Research on teaching creativity has generally shown that certain aspects of creativity, e.g. fluency or flexibility, increase when these skills are taught through specific exercise. For example, a study by Raina (1979) in India showed the teaching of creative problem-solving methods increased the fluency of ideas, but did not seem to affect the originality of ideas.

One method most frequently used to develop creativity is creative problem solving. Parnes (1967) defined the steps in creative problem solving as fact--finding, problem-finding, idea-finding, solution-finding, and acceptance-finding.

Fact-finding involves gathering as much information as possible about the problem. Problem-finding is the process of defining the problem clearly and concisely. Accurate definition of the problem is one of the most essential steps in the problem-solving process. For example, if a teacher needs a computer for gifted students but has no money to purchase one, the teacher may see the problem as how to raise money to purchase a computer, whereas seeing the problem as how else might a computer be obtained, may raise the possibility of a loan or gift of a computer from a community member. Idea-finding is the brainstorming process which generates a quantity of solutions for the problem. Here "quantity" is the key word. Solution-finding is the evaluation of solutions by established criteria, such as, does the solution create new problems? Is it practical? Acceptance-finding is the application of the solution to the problem.

Teachers can use group problem-solving strategies to help students develop creative problem-solving techniques that the students can apply in their own lives. Group problem-solving strategies include brainstorming and systematic problem-solving techniques. Brainstorming is a process introduced by the late Alex F.

Osborn, an advertising executive. This process has been used successfully in business, industry, and government. The purpose of brainstorming is to generate a great number of ideas on a given topic. This is done without judging them as right or wrong, good or bad. Brainstorming and creative problem-solving are tools used in developing creativity. These skills are included in the Scope and Sequence.

ENCOURAGING THE DEVELOPMENT OF CREATIVE PRODUCTS OR PRODUCTIVITY

A result of creativity is the development of creative products or productivity. Several prominent educators have developed models for gifted education that encourage the development of creativity and of original products. These models are the Three-Stage Model of Dr. John Feldhusen, the Enrichment Triad Model of Dr. Joseph Renzulli (1977), and the Model for Self-Actualization of Robert Taylor. Each of these models contains an element for the development of creativity or creative products.

Each of the above models presents a method for planning a program for gifted students. In each model, the development of creativity is an important aspect. Activity and productivity are key capabilities to be developed in gifted students.

Granople (1982) indicated the need for explicit description of expected learning behavior for gifted students.

The Scope and Sequence included in the STAGE Program not only encompasses the creative productive aspect of previous program models, but also delineates skills related to creativity and productivity.

COMMUNICATION SKILLS

It is not enough to be able to analyze and synthesize information or to create new and original products and ideas. These must somehow be communicated to others.

Many artists and inventors have gone unnoticed because they have not been able to make the world aware of their work or inventions. The gifted and talented may need help in both communicating and in marketing their inventions.

Renzulli (1977) identified this need for students to communicate the results of their research in a meaningful way. One of the objectives of his Type II Enrichment Activities is to find appropriate outlets for students' work. Gifted students need to communicate with peers and adults. Clark (1983) noted the need for students to express ideas and feelings clearly and effectively. She also indicated the importance of making students aware of how active listening affects communication.

Appropriate communication skills for gifted students as developed in the STAGE Scope and Sequence cover a wide spectrum from simply sharing ideas with peers about a subject of interest, such as space science or the latest computer game designed by a student, to finding appropriate outlets for products, such as having a short story published in a magazine. The skills outlined in the Scope and Sequence lend themselves to exciting and challenging classroom activities. Some sample activities are:

- Practice effective listening through group discussions in which students encourage others to express and clarify their ideas and feelings

- Analyze ads and create effective ads for student products

- Debate a topic of concern, supporting arguments with facts, and speaking clearly and persuasively

- Form hypotheses, design surveys, gather data, organize and tabulate data, draw conclusions, and express ideas in clear, concise form.

The Scope and Sequence is written to achieve sequential development of thinking skills, creativity, productivity, and communication skills. This will enable teachers in programs for gifted students to prepare more explicit objectives and activities for developing desired student competencies. By combining these skills with student interests, exciting, challenging curricula can be developed for gidted and talented students.

The STAGE Scope and Sequence is accompanied by a Scope and Sequence Behavorial Checklist which delineates the skills outlined in the Scope and Sequence. (See the section on Evaluation for an explanation of the Scope and Sequence Behavioral Checklist). This enables the GATE instructor to monitor each student's progress in each skill area through all twelve years in the GATE program. The STAGE Scope and Sequence begins on the following page.

SCOPE AND SEQUENCE

GRADES K-3
Awarenewss and Experience

I. Small-Group Interest-Centered Pupil Activities which Lead to Discussion

- A. Developing social-interaction skills
- B. Experiencing leadership situations
- C. Going on educational trips
- D. Listening to and talking with classroom guests

II. Exploratory, Inquiry Learning Experiences

- A. Becoming familiar with critical thinking
- B. Outlining and sequencing information
- C. Exploring ways of obtaining information

III. Divergent Problem Solving: Group Activities

- A. Learning basic problem-solving strategies
- B. Exploring feelings and emotions
- C. Developing fluency, flexibility, and originality

IV. Individual Projects Related to Student Interest

- A. Giving verbal feedback of learned material
- B. Setting goals and analyzing tasks
- C. Communicating and sharing information with others

GRADES 4-6
Research and Communication

I. Group Dynamics and Interaction

- A. Interacting positively in a group decision-making situation
- B. Role-playing problem-solving situations
- C. Using formal logic operations

II. Group Projects Related to Specific Communication and Research Skills

- A. Using thinking skills (Bloom) related to a given task
- B. Applying research skills to a specific project
- C. Communicating ideas effectively

III. Independent Study in an Interest Area

- A. Organizing a project
- B. Using multi-media research
- C. Demonstrating a project or an activity
- D. Using self-evaluation techniques

GRADES 7-8
Refinement of Research, Communication, and Independent Study Skills

I. Refinement of Research Skills

- A. Experiencing inquiry and hypothesis-testing activities
- B. Writing objectives incorporating the thinking skills of Bloom
- C. Using research skills in group and individual projects

II. Refinement of Communication Skills

- A. Writing a three-to-four paragraph essay with logical organization of thoughts
- B. Developing persuasive speaking techniques
- C. Developing responsive listening techniques
- D. Analyzing news and advertising media

III. Refinement of Independent Study Skills

- A. Using time effectively to reach goal
- B. Extracting main idea and taking effective notes
- C. Finding authentic outlets for projects

GRADES 9-12
Production of Original Research and/or Products and Career Awareness

I. Conception and Production of an Original Contribution to the Existing Body of Knowledge

- A. Conceiving original research or product
- B. Applying research skills to project
- C. Organizing and completing original research

II. Application of Communication Skills

- A. Finding appropriate audience for research and/or product
- B. Presenting findings or product to the appropriate audience

III. Exploration of Careers

- A. Defining values in relation to careers
- B. Defining strengths in relation to careers
- C. Exploring careers of interest

IV. Exploration of Resources and Use of Mentors

- A. Meeting with other students for field trips to deepen awareness of career options
- B. Meeting with mentors in area of interest

ABILITIES' CHECKLIST

The second element in the STAGE Program is the Scope and Sequence Abilities' Checklist. The Scope and Sequence Abilities' Checklist enables a comparative analysis to be made of a student's behavior from the viewpoint of both the classroom teacher and the GATE instructor.

The checklist identifies abilities which students should master after performing specific classroom activities that were defined in the Scope and Sequence. A student is "checked-off" by both instructors separately. Then a comparison is made of the two lists. Those behaviors observed by both teachers may be assumed to be assimilated by the student. Those abilities observed by one teacher and not the other may not have transferred to the student's bank of useful experiences, or the student may not have had the opportunity to exhibit the behavior in that classroom situation. By this comparative process, a reasonable assessment of an individual's accomplishment, correlated to the program Scope and Sequence, can be made. This assessment can then be used in preparing Individual Education Plans.

These plans are used as both a means of directing learning and instruction and as a basis for subsequent evaluation of pupil progress. In ideal situations the information may be used also to facilitate the most appropriate and efficient grouping of students in special GATE classes, enabling individuals to participate in programs appropriate to their level of development. Specific behavioral assessment of this type allows teachers to plan appropriate individual and group activities and to set legitimate expectations for individuals.

GRADES K-3 ABILITIES

I. Small-Group Interest-Centered Pupil Activities which Lead to Discussion

- _____ Give a demonstration and/or share a concept with peers
- _____ Contribute new information to a group discussion
- _____ Give directions
- _____ Listen in a group situation and give organized verbal or written feed-back

II. Emphasis on Exploratory, Inquiry Learning Experiences

- _____ Analyze and sequence information
- _____ Make comparisons
- _____ Apply information to an interest area
- _____ Set criteria for and evaluate projects
- _____ Make a simple outline
- _____ Arrange information in a logical order
- _____ Use the card catalog
- _____ Write questions
- _____ List and obtain several sources of information
- _____ Use a table of contents and/or index

III. Divergent Problem Solving: Group Activities

- _____ Use brainstorming techniques
- _____ Use synectics techniques
- _____ Describe attributes
- _____ Use relaxation techniques
- _____ Visualize (image) and then share the images, verbally, visually, or in story form
- _____ Express and describe emotion

(Grades K-3 Abilities Continued)

IV. Individual Projects Related to Student Interest

_____ Isolate main ideas from information gathered
_____ Break down and order necessary steps in a given task
_____ Set and meet specific goals
_____ Describe information accurately, either in writing or verbally

GRADES 4-6 ABILITIES

I. Group Dynamics and Interaction

- _____ Interact positively in a group decision-making situation
- _____ Reach a consensus
- _____ Determine and support peer leadership roles
- _____ Identify problems and find alternative solutions
- _____ Sequence steps in solving a real problem or circumstance
- _____ Role-play problem-solving situations
- _____ Use formal logic operations

II. Group Projects Related to Specific Communication and Research Skills

- _____ Identify "thinking skills" related to a given task
- _____ Use a Reader's Guide to Periodical Literature
- _____ Use interview techniques
- _____ Organize research information in an outline format
- _____ Prepare arguments to support or negate a conclusion
- _____ Communicate research findings effectively
- _____ Follow verbal directions
- _____ Interpret and act out non-verbal statements

III. Independent Study in an Interest Area

- _____ Determine and sequence steps
- _____ Organize and conduct an individual research project using several sources of information
- _____ Effectively display, demonstrate, or explain a completed project to a peer group
- _____ Make a specific statement concerning evaluation of a personal project

GRADES 7-8 ABILITIES

I. Refinement of Research Skills

- ____ Make and test a hypothesis
- ____ Observe and record a series of events leading to a conclusion
- ____ Write a simple objective related to a project and identify the appropriate thinking skill related to the objective

II. Refinement of Communication Skills

- ____ Write an essay which demonstrates a logical sequence of thought with correct grammar and punctuation
- ____ Reach an inference or a conclusion about an area of research and express it to others in a positive, documented speech or paper
- ____ Prepare and give an extemporaneous or impromptu persuasive speech
- ____ Assign correct ownership of a problem in a responsive-listening situation
- ____ Phrase critical comments in "I" statements in an interactive conversation
- ____ Differentiate between bias and prejudice
- ____ Differentiate between fact and opinion
- ____ Recognize and label types of propaganda in the news and advertising media

III. Refinement of Independent Study Skills

- ____ Set and meet definite deadlines
- ____ Take notes which identify main ideas and sources of information
- ____ Present completed projects to the public in an appropriate manner

GRADES 9-12 ABILITIES

I. Conception and Production of an Original Contribution to the Existing Body of Knowledge

- _____ Design original research or product
- _____ Organize original research or product
- _____ Complete original research or product

II. Application of Communication Skills

- _____ Identify appropriate audience for original research or product
- _____ Effectively communicate research or product to that audience
- _____ Refine speaking and writing skills

III. Exploration of Careers

- _____ Clarify own values through value-awareness activities and discussions
- _____ Identify areas of strength and relate that to careers
- _____ Explain about selected careers in depth

IV. Explore Resources and Meet with Mentors

- _____ Expand awareness through educational trips or speakers
- _____ Work effectively with mentors in areas of interest

INDIVIDUAL EDUCATION PLAN

INDIVIDUAL EDUCATION PLAN

The third element in the STAGE Program is the Individual Education Plan (IEP). The purpose of preparing an IEP for a gifted student is to ensure that attention is focused upon experiences appropriate to each student's needs. At an IEP meeting, annual goals, as well as short range goals, are formally adopted for each student. Activities are then planned to fulfill the selected goals.

The STAGE Program is unique in that each goal of the student's IEP is matched with a major heading of the Scope and Sequence Abilities' Checklist. (See pages 20-25.) This forms a simple, but strong, double bond between the desired outcomes of the Scope and Sequence and the IEP. Each time an annual goal is met, a major item of the Scope and Sequence is accomplished. Activities supporting the Scope and Sequence, also meet annual goals.

Samples of the IEP forms used in the STAGE Program follow.

TRINITY COUNTY OFFICE OF EDUCATION

INDIVIDUAL EDUCATION PLAN (I.E.P.)

____Admit

____Review

____
Date of Meeting

____
Student (Last) (First)

____
Sex of Child M F

____
Date of Birth Mo/Da/Yr

____
Date of Placement

____
Parent

____
Address (Number & Street)

____
City Zip

____
Phone (Home) (Work)

____
Regular Education Teacher

____
School of Attendance/grade level

____
Special Ed. Teacher/Specialist

An IEP is a statement of services to be provided for meeting the goals and objectives. It is not a contract which guarantees accomplishment of the goals and objectives.

GATE PROGRAM

____High Achievement

____Creative

____Both

Rationale:

Psychological Assessment

____
I Q Score

____
Outstanding Subtests

____
Torrance Subtest Scores

Achievement Test Scores

Math___Spelling___Total___

Reading___Language___

COMMITTEE SIGNATURES

I ____ consent ____ do not consent to the participation of my child in the educational program recommended by the GATE committee. I have received my rights and had them explained to me.

____
Parent/Guardian Date

____
Parent/Guardian Date

____
Special Education Administrator/Designee

____
School Administrator/Designee

____
Regular Education Teacher

____
Special Education Teacher

Grades K to 3

Name _____

School _____

Date _____

	Annual Goals
A. Modification in Regular Classroom 1. "Taxonomy of Educational Objectives" (Bloom) 2. Cluster Grouping 3. Special Activities (Plays, etc.) 4. Learning Centers/ Special Projects 5. Acceleration	A.
B. Small-Group Interest-Centered Activities which Lead to Discussion	B.
C. Exploratory, Inquiry Learning Experiences	C.
D. Divergent Problem Solving Group Activities	D.
E. Individual Projects Related to Student Interest	E.
F. S.O.I. Strengths: Weaknesses:	F.
G. COMMENTS	G.

Name _____ **Grades 4 to 8**

School _____

Date _____

ANNUAL GOALS

A. Modification in Regular Classroom A.
1. "Taxonomy of Educational
1. Objectives" (Bloom)
2. Cluster Grouping
3. Special Activities (Plays,
3. etc.)
4. Learning Centers/Special
4. Projects
5. Acceleration

B. Group Dynamics and Interests B.

C. Group Projects Related to Specific Communication and Research Skills C.

D. Independent Study in an Interest Area D.

E. S.O.I. E.

Strengths:

Weaknesses:

F. COMMENTS F.

Name _____

School _____

Date _____

	ANNUAL GOALS
A. Modification of Regular Classroom 1. "Taxonomy of Educational 1. Objectives" (Bloom) 2. Cluster Grouping 3. Special Activities (Play, 3. etc.) 4. Learning Centers/Special 4. Projects	A.
B. Refinement of Research Skills	B.
C. Refinement of Communication Skills	C.
D. Refinement of Independent Study Skills	D.
E. S.O.I. Strengths: Weaknessess:	E.
F. COMMENTS	F.

Name _____

School _____

Date _____

	ANNUAL GOALS
A. Conception and Production of an Original Contribution to the Existing Body of Knowledge	A.
B. Application of Communication Skills	B.
C. Exploration of Careers	C.
D. Exploration of Resources and Use of Mentors	D.
E. COMMENTS	E.

INDIVIDUAL EDUCATION PLAN
SHORT-TERM OBJECTIVES

Student Name _____ School _____

Date of IEP _____ Teacher _____

GOALS	SHORT TERM OBJECTIVES	SPECIFIC PROCEDURES, TECHNIQUES, MATERIALS, ETC.	EVALUATION CRITERIA	DATE OF EVALUATION MET/NOT MET	COMMENTS

EVALUATION

EVALUATION

The fourth element of the STAGE Program is evaluation. The evaluation component of the STAGE Program is formative in nature. All evaluation processes are designed to feed useful information back into the system. When used properly, this evaluation data becomes part of the total assessment package. (Clark, 1983)

The evaluation is a three-fold process. First, the Scope and Sequence Abilities' Checklist (see page 20-25), provides information about a student's sequential and behavioral progress. Second, a pre-post survey provides a vehicle for student feedback about general program dynamics. Third, the weekly evaluation card provides students with an opportunity to practice goal-setting and time management and to look at the weekly accomplishment of personal objectives related to particular class activities. The weekly evaluation card easily translates into a criteria-referenced system for assigning grades. The student supplies personal input in a conference. Used in this way, evaluation becomes a functional part of the learning process.

PRE - POST SURVEY

This evaluation tool is designed to evaluate how well the student's needs are being met with regard to self-image, interaction with others, career expectations, and motivation. The survey is administered in a pre-post Likert Scale-type inventory at the beginning and end of the school year. A comparative analysis provides a graphic representation of how well the student perceives his or her needs to be met by the GATE class. While it is true that many other variables may affect the student in these areas besides participation in the GATE program, a change up or down in the scale, especially if the change is consistent for a given class, age group, etc., may provide information vital to changes in the GATE program format.

To produce a graphic representation for each student, an overlay is placed over both completed forms, and the points are then connected. A sample of the Pre-Test, Post-Test, and a graphic overlay of both tests follows.

Pre-Test

Name _____

School _____

Year _____

Mark each answer on a scale of 1-5
(5-a great deal, 1-not any)

1. This year in GATE I'm going to study_____

2. On the whole, I would say I get along with others as well as anyone.
   5 4 3 2 1

3. I feel I know a lot about my own capabilities.
   5 4 3 2 1

4. I am aware of career possibilities in my field of study this year.
   5 4 3 2 1

5. I have trouble finding things to do in my free time.
   5 4 3 2 1

6. I am naturally curious about new things.
   5 4 3 2 1

7. I feel a need to be challenged in GATE classes.
   5 4 3 2 1

8. I would like to meet with experts in my field of study.
   5 4 3 2 1

9. My friends hassle me because I'm in this class.
   5 4 3 2 1

10. My parents have unfair expectations of me because I'm in this class.
    5 4 3 2 1

11. My teachers have unfair expectations of me because I'm in this class.
    5 4 3 2 1

12. I get along well with other kids.
    5 4 3 2 1

13. I think taking this class will help me do better in my other classes.
    5 4 3 2 1

Post Test

Name _____

School _____

Year _____

Mark each answer on a scale of 1-5
(5-a great deal, 1-not any)

1. I have one special area about which I know a lot.
   5 4 3 2 1
2. On the whole, I would say I get along with others as well as anyone.
   5 4 3 2 1
3. Taking this class has helped me know about my personal capabilities.
   5 4 3 2 1
4. Taking this class has helped me learn some career possibilities.
   5 4 3 2 1
5. I often use my free time to do things I learned to do in this class.
   5 4 3 2 1
6. I am curious about things because of what I learned in this class.
   5 4 3 2 1
7. I was challenged by the things I did in this year's GATE class.
   5 4 3 2 1
8. This class has allowed me to meet with experts in my field of study.
   5 4 3 2 1
9. My friends hassle me because I'm in this class.
   5 4 3 2 1

10. My parents have unfair expectations of me because I'm in this class.

    5 4 3 2 1

11. My teachers have unfair expectations of me because I'm in this class.

    5 4 3 2 1

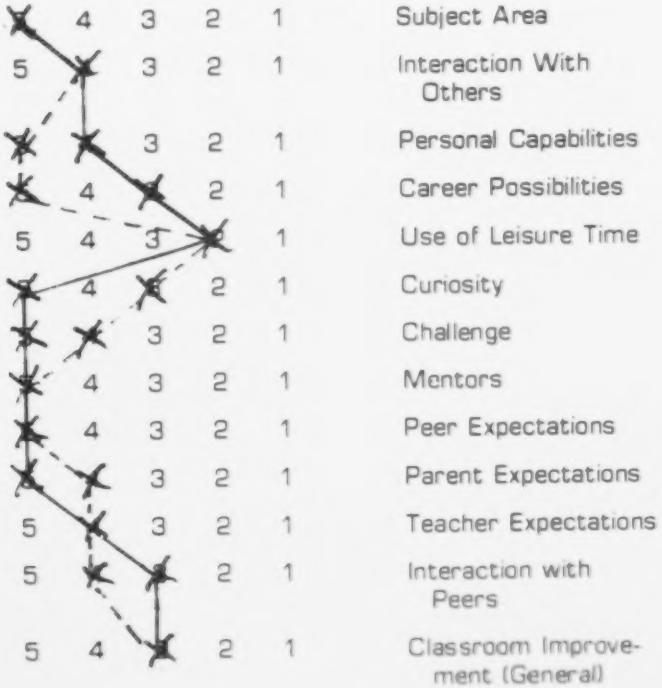
12. I get along better with other kids because I was in this class.

    5 4 3 2 1

13. I'm doing better in my other classes because I took this class.

    5 4 3 2 1

Graphic Overlay of Pre-Post Test Responses


4 3 2 1 Subject Area
5 3 2 1 Interaction With Others
3 2 1 Personal Capabilities
4 2 1 Career Possibilities
5 4 3 1 Use of Leisure Time
4 2 1 Curiosity
3 2 1 Challenge
4 3 2 1 Mentors
4 3 2 1 Peer Expectations
3 2 1 Parent Expectations
5 3 2 1 Teacher Expectations
5 2 1 Interaction with Peers
5 4 2 1 Classroom Improvement (General)
Pre
Post

A possible analysis of this graphic overlay is presented as follows.

1. The student feels he/she has learned a great deal about chemistry as a result of this class.
2. The student has no change in feelings about ability to interact with others.
3. Student feels he/she better understands his/her personal capabilities.
4. This class has aided the student in understanding career possibilities.
5. The student has not changed use of leisure time.
6. The class did not stimulate the student's curiosity.
7. The student's need to be challenged was met.
8. The student needs more contact with mentors.
9. The class caused a negative change in perception of peer expectations.
10. The class caused no change in parent expectations.
11. The class caused no change in teacher expectations.
12. The class caused a positive change in interaction with peers.
13. The class caused no change in regular classroom work.

This type of analysis also can be projected across classes by figuring the percentage of responses for a given group and comparing the two sets of data for a change in the percentage of a specific response. In this manner, a teacher or program administrator can look at the factors of student perception of self (questions 1, 3, 5); interaction with others (questions 2, 9, 10, 11, 12); career expectations (questions 4, 8); and motivation (questions 6, 7, 13) as having been changed by the GATE program or as remaining unaffected.

WEEKLY EVALUATION CARD

Much has been written about the inconsistency and ambiguity of grading systems, and the particular problems that gifted students encounter in grading. Evaluation, however, is an important adjunct to any learning situation. It is from evaluation that individuals are able to assess strengths and weaknesses. Self-evaluation techniques and evaluation conferences involve students and provide a basis for constructive changes in both cognitive and affective behavior.

The student evaluation portion of the STAGE Program is designed to reflect student performance in these areas:

1. Use of time
2. Progress toward a definite objective
3. Quality of work.

At the beginning of each week, students are asked to write an objective detailing what they will work on for that week. For primary grades, the teacher may write the objective and discuss it with each student. These objectives generally are taken from the specific objectives, or a part of an objective, listed in the student's Individual Education Plan. In this way, teacher and student are in agreement about the activities the student will pursue that week. In addition, the student is given experience in identifying and setting manageable goals.

At the end of the week, students confer with the teacher to determine how well they utilized class time to complete their objective, their progress toward their goals, and the quality of the week's work. In this fashion, students look at the tasks accomplished as they fit into the structure of a larger objective.

Evaluation cards simplify the process and translate into earned points for a one-week period. The highest possible score (optimum performance in all three areas) is 12, and the lowest score is 3.

EVALUATION CARD

Date ..... Total Points This Week ☐

Name .....

Subject Area .....

Weekly Objective .....

1 Use of time

efficient	adequate	questionable	waste
4	3	2	1

2 Progress toward a definite objective

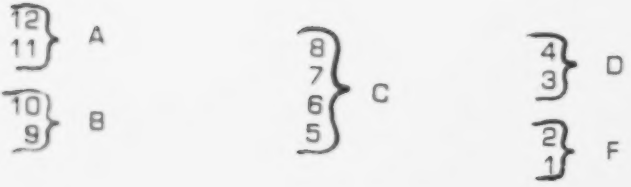
rapid	adequate	slow	no progress
4	3	2	1

3 Quality of work

excellent	acceptable	marginal	poor
4	3	2	1

At the predetermined grading period (quarter, semester, etc.), all of the student's card scores are added together and the total divided by the number of cards the student has completed. This provides a total score ranging from 12 to 1. These scores can then be assigned a letter grade. The following illustrates one example of such a grading scale.

GRADING SCALE



(Figures are rounded up to the nearest tenth.)

This type of evaluation has the advantage of being criterion-referenced and formative in nature. The student input is valuable in helping students to set realistic goals and analyze their skill development in a given area. Students tend to evaluate themselves more rigorously and take more responsibility for their performance than if they are evaluated solely by their teachers.

The four elements of the STAGE Program -Scope and Sequence, Abilities' Checklist, Individual Education Plan, and Evaluation Systems - mesh to form a total management system for GATE programs. One final explanation may clarify how these four items are used in the daily classroom management.

CLASSROOM MANAGEMENT

CLASSROOM MANAGEMENT

In most school settings, students are grouped homogeneously by grade level. They meet with the GATE instructor on a daily basis in 45-50-minute periods. Students are generally pulled out of their classroom reading periods. Then the GATE program becomes responsible for giving a reading/GATE grade. The majority of these students read at three or more years above grade level and accomplish more sophisticated levels of reading. This way, students are not penalized for being pulled out of their classroom program.

Major objectives listed in the Scope and Sequence are generally addressed through group activities. Most teachers spend an average of two days per week in activities of this sort and use the remaining days for the students' independent study projects.

Independent projects are chosen by the students from the interest inventories. (See Appendix.) The GATE instructor becomes a facilitator and guide in these projects. This instructor writes specific objectives in the student's IEP in ways that correlate the student's needs to his interests. (See section on Individual Education Plans.)

Student evaluation is done during each individuals weekly student conference. (See section on Evaluation.)

The GATE instructor is responsible for obtaining and correlating instructional materials and supplies related to the student's interest-based project. If the student is involved in a correspondence-course activity, the teacher becomes the course monitor. It is also the teacher's responsibility, whenever possible, to provide the students with experiences with mentors from the community .

Elementary GATE instructors meet regularly with the student's regular classroom teachers to assist them

INTEREST INVENTORY
Kindergarten and Grades 1-3

I would like to study:	×	o	-
1. More math (math games, tangranimals, attribute games, pattern blocks, metric system)			
2. Indians			
3. Animals (ecosystems, habitat)			
4. Fish (raise tadpoles or brine shrimp)			
5. How to protect nature (ecology, water and soil conservation)			
6. Trees, flowers, or plants (grow seeds)			
7. Fossils and prehistoric animals			
8. Weather			
9. Space science and space exploration (space vehicles, stars, planet, moon)			
10. Airplanes (history, science)			
11. Arts and crafts (painting, pottery, sculpture)			
12. Stories and poems			
13. Logging and forestry			
14. Insects (collect and mount insects, raise butterflies)			
15. Rocks (types, labeling, uses)			
16. Microscope (make slides, compare slides, study microbes)			
17. Gold mining (history, process)			
18. Electricity and magnetism			
19. Plays			
20. Folktales, fairy tales, and fables			

Name _____

Grade _____

Date _____

INTERMEDIATE INTEREST INVENTORY
Grade 4

I would like to study:	×	o	-
1. More math (base 2 numbering system, algebra, logic)			
2. Conservation (pond studies or soil studies)			
3. Space science and rocketry			
4. Logging and forestry			
5. Indians			
6. Animals (care of, animal bones, communication, preservation of, behavior of)			
7. Weather			
8. Ocean (fish, plants, ships, ocean floor)			
9. Trees and plants			
10. Insects (collect and mount insects; raise and study snails)			
11. Fossils, shells, and prehistoric animals			
12. History of Trinity County (Joss House, gold mining)			
13. History of our country			
14. Other countries (people, customs, language)			
15. Geology (land forms, mountains, volcanoes)			
16. Drama or write and produce a play; write a radio play			
17. Electronics			
18. More art (pottery, painting, sculpture, puppetry)			
19. Stories or poems			
20. Aerodynamics or aviation			
21. Use of the microscope (study cells, amoeba, microbes, structures)			
22. Folktales, fairy tales, and fables			
23. Music (history, listening)			
24. Filmmaking			

Name _____

Grade _____

Date _____ 51

INTERMEDIATE INTEREST INVENTORY
Grades 5-6

I would like to study:	×	o	-
1. More math (math games, geometry, algebra)			
2. Conservation (pond studies, soil studies)			
3. Folktales, fairytales, and fables. Write original works.			
4. Myths and legends			
5. Economics or consumer education (budgeting, opening bank accounts, writing checks, comparing prices)			
6. Animals (study bones, build skeletal system, study endangered species)			
7. Aeronautics (weather, planes, history, careers)			
8. Photography			
9. Trees and plants			
10. Film or make a slide film or super 8 film about topics of my choice			
11. Insects; collect and mount insects; raise and study snails or other insects			
12. Solar energy			
13. More about the history of Trinity County			
14. More about the history of our country			
15. About other countries (people, customs, language)			
16. Stars, planets, or space exploration; build a rocket			
17. Geology (mountains, volcanoes, land forms, rock collecting, caves)			
18. Drama (write and produce a play, learn about acting)			
19. Gold mining or the missions of California			
20. More art (painting, puppetry, macrame, pottery)			
21. Stories, poems, or radio plays			
22. Chemistry			
23. Electronics			
24. Music (history, music appreciation)			

Name _____

Grade _____

Date _____

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JUNIOR HIGH INTEREST INVENTORY
Grades 7-8

I would like to study:	×	o	-
1. More math (algebra, geometry, problem-solving, logic)			
2. Plants (botany, biology)			
3. Photography			
4. Advertising and/or consumer education; write and illustrate ads			
5. Chemistry			
6. Animals (ecosystems, skeletal systems, habitats)			
7. Aeronautics (weather, airplanes)			
8. Oceanography (fish, plants, ships)			
9. History of Trinity County			
10. Conservation (stream, forest, or soil studies)			
11. Science fiction or the future			
12. Astronomy or space exploration and rocketry			
13. Drawing plans for a house; build scale model of house			
14. Geology (mountains, volcanoes, land forms, rock collecting, caves)			
15. How to make a slide film super 8 movie, or video tape about a topic of my choice			
16. Drama (write a play; produce a radio play; attend a play; study Shakespeare; study acting)			
17. Current events, government, or history			
18. Energy (solar, electric, other)			
19. How to write stories or poems			
20. Different careers; how to organize a career day			
21. Art (sculpture, painting, pottery)			
22. Law and the justice system			
23. Music (appreciation and history)			
24. Geneology			
25. Computer programming			

Name _____

53

Grade _____

HIGH SCHOOL INTEREST INVENTORY
Grades 9-12

I would like to study:	X	o	-
1. Philosophy			
2. Electronics			
3. Economics or stock market			
4. Advertising and create own ads			
5. Filmmaking; make a super 8 film or video tape			
6. French, German, Latin, or another language			
7. A correspondence course in a subject of my choice			
8. How to make a slide show on topic of my choice			
9. Computer programming or computer electronics			
10. Geology (mountains, volcanoes, land forms)			
11. Archeology			
12. Psychology and design own investigations			
13. New research on the brain and design own investigations			
14. Botany or do pond or soil studies			
15. Alternative energy (solar, wind)			
16. Literature or mythology			
17. Poetry, stories, radio or TV plays, etc.			
18. Journalism			
19. Advanced biology (stream studies, insect classification, plant classification)			
20. Sociology of mass media			
21. Anatomy			
22. Physiology			
23. Aeronautics (ground school)			
24. Oceanography (ocean floor, marine life, underwater vessels)			
25. Astronomy or space exploration (do astrophotography)			
26. Architecture; draw plans for house; build scale model of home			
27. Geneology			

Name _____

Grade _____

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